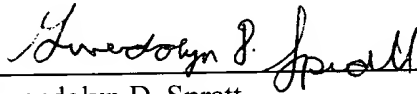


ATTORNEY DOCKET NO. 23232.0002
SERIAL NO. 09/462,955

No additional fee is believed due; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

NEEDLE & ROSENBERG, P.C.


Gwendolyn D. Spratt
Registration No. 36,016

NEEDLE & ROSENBERG, P.C.
Suite 1200, The Candler Building
127 Peachtree Street, N.E.
Atlanta, Georgia 30303-1811
404/688-0770

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date shown below:


Gwendolyn D. Spratt
9-17-01
Date

Appendix

Marked up specification.

paragraph starting at line 23 on page 2

--The CFDV virus is located in the vascular system of the plant (cf. J.W. Randles et al.: "Localization of coconut foliar decay virus in coconut palm", Ann. Appl. Biology 1992, 601-617). A DNA associated with the disease symptoms and the occurrence of viral particles has already been cloned, sequenced and its structure determined at an earlier point in time (cf. W. Rohde et al.: "Nucleotide sequence of a circular single-stranded DNA associated with coconut foliar decay virus", Virology 176: 648-651, 1990) (SEQ ID NO:1). CFDV is a viral phytopathogen with a genome consisting of covalently closed-circular simplex DNA. Rohde et al., Virology 176: 648-651, 1990 described a DNA molecule of CFDV with a size of 1291 nucleotides and deletion mutants thereof (SEQ ID NO:1). CFDV is not a representative of the geminivirus group, but probably constitutes the prototype of the DNA virus group of the "circoviruses".--

paragraph starting at line 38 on page 3

Relative to the 5'-end of the linearized DNA, which results from cleaving the circular CFDV DNA with the restriction endonuclease *XhoI*, as position 1, the stem-loop structure encompasses the nucleotides 941 to 971 of SEQ ID NO:1; the open CFDV reading frames ORF1 and ORF2 encompass the nucleotides 1004 to 583 of SEQ ID NO:1, and 1215 to 383 of SEQ ID NO:1, respectively.

paragraph starting at line 20 on page 4

Particularly preferred CFDV DNA fragments according to the invention are the DNA fragments with the nucleotides 211 to 991 of SEQ ID NO:1, 409 to 991 of SEQ ID NO:1, 611 to 991 of SEQ ID NO:1 or 711 to 991 of SEQ ID NO:1.

paragraph starting at line 34 on page 5

Fig. 2: the so-called stem-loop structure (SEQ ID NO:2); it shows homology to a similar structure in the genome of geminiviruses and is probably responsible for the replication of the virus (SEQ ID Nos: 3, 4, and 5).

paragraph starting at line 12 on page 6

Fig. 4: the sequence of the two repeated sequences (RPT) (SEQ ID NO:6) and their arrangement as stable stem-loop structures with the customary CGAAG-loop sequence.

paragraph starting at line 9 on page 9

The CFDV fragments contained in Table 1 and shown schematically in Figure 4, which are marked "pRT CF2 - 5", are CFDV fragments according to the invention. The CFDV fragments marked "pRT CF7-10" are CFDV fragments which are not according to the invention; while they still retain the TATAA box, their CFDV sequence is deleted at the 3'-end in such a way that the stem-loop structure can no longer be formed. All nucleotide positions referred to in the table are in reference to SEQ ID NO:1.

paragraph starting at line 14 on page 13

The constructs pRT CF 7 - 10, which are not according to the invention, show no activity whatsoever in tobacco protoplasts, which demonstrates that the facility of forming the stem-loop structure in the region of the nucleotides 941 to 971 of SEQ ID NO:1 in the CFDV fragment promoter is essential for the promoter activity.

paragraph starting at line 7 on page 15

The results shown in Table 3A demonstrate that all CFDV DNA fragments according to the invention are also active as promoters in bacteria and show a higher activity than the CaMV 35S promoter (cf. construct pRT 35S). Compared with the construct pRT CF4, which contains, as promoter, a CFDV DNA fragment which comprises the repeated structures (RPT), the 52-bp-sequence, the TATAA sequence and the stem-loop structure in the region of the nucleotides 941 to 974 of SEQ ID NO:1, but no DNA sections whatsoever of the open reading frames ORF1, ORF2 and also ORF3, the construct pRT 35S with the CaMV 35S promoter only shows less than 10% of the activity of the former.

Marked-up claims.

3. CFDV virus DNA fragment according to Claim 1, characterized in that it encompasses the nucleotides 211 to 991 of SEQ ID NO:1, 409 to 991 of SEQ ID NO:1, 611 to 991 of SEQ ID NO:1 or 711 to 991 of SEQ ID NO:1, where, for the purpose of numbering the nucleotides, the 5'-end of the linearized DNA resulting from cleaving the circular CFDV DNA with the restriction endonuclease *XhoI*, has been assigned the position 1.